

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 04218777
PUBLICATION DATE : 10-08-92

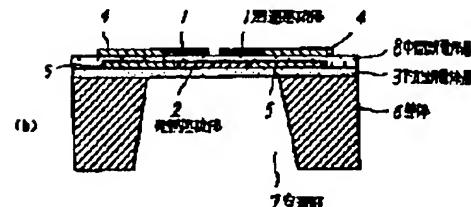
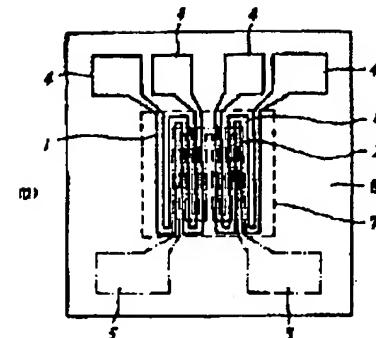
APPLICATION DATE : 14-12-90
APPLICATION NUMBER : 02402075

APPLICANT : FUJI ELECTRIC CO LTD;

INVENTOR : UMEMOTO HIDETOSHI;

INT.CL. : G01P 5/12 G01F 1/68

TITLE : MICRO FLOW SENSOR AND
MANUFACTURE THEREOF



ABSTRACT : PURPOSE: To increase the sensitivity and measuring precision of a micro flow sensor for measuring the flow rate of a fluid from a change in the resistance of a temperature-measuring resistor heated by a heating resistor and to increase the strength of a resistor support layer thereof, or to reduce power consumption.

CONSTITUTION: A heating resistor and a temperature-measuring resistor are formed on separate planes with an intermediate dielectric layer interlaid. The area of the temperature-measuring resistor is made large so as to increase a resistance value, and the area of contact with a fluid is made large so as to improve sensitivity or to reduce power consumption. The temperature- measuring resistor and the heating resistor are covered, otherwise, with a protective reinforcement layer having a high heat conductivity, so as to prevent lowering of the sensitivity due to corrosion, sticking of dust, etc., and to improve the sensitivity. Moreover, a ground dielectric layer for supporting the temperature-measuring resistor and the heating resistor is formed in the thickness of $3\mu\text{m}$ or above, and then it is etched to have a suitable thickness for the strength and the sensitivity.

COPYRIGHT: (C)1992,JPO&Japio